

REMARKS

Allowance of the pending Claims is requested in view of the amendments and comments contained herein.

Entry of this Amendment is requested since it should serve to remove the Section 112, second paragraph ground of rejection. AS suggested by the Examiner, Claims 1 and 9 now recite the terminology "hydroxyl number", which finds basis at page 9, line 28 of the application.

All Section 103 grounds of rejection should be removed since the cited prior art does not suggest the combination of *two organic phosphate flame retardants* to provide: one being a monomeric non-halogenated species and the other being an oligomeric species having the recited low hydroxyl number characteristics.

- Both cited Fearing patents, do contain a vague indication at page 8, lines 28-29 of having the basic oligomeric phosphate/phosphonate flame retardant supplemented with an additional flame retardant species. However, both of these patents are completely silent as to what type of such species is to be selected for that additional additive. Clearly, there is no suggestion, however remote, of selecting the type of non-halogenated monomeric phosphate ester flame retardant that forms applicants' component (a).
- The other primary citation, the Sicken patent, is quite similar to the Fearing teaching in regard to its complete non-suggestion of what specific additional flame retardant might be combined with its oligomeric phosphate ester flame retardant. It merely states at Col. 4., lines 30-36 that its depicted class of flame

retardant can be used, if desired, "as a mixture with other flameproofing agents". Once again, there is no suggestion, however remote, of selecting the type of non-halogenated monomeric phosphate ester flame retardant that forms applicants' component (a) as the second type of additive.

- All of the Section 103 grounds of rejection rely upon the additional citation of the Keppeler patent, as a secondary reference, to allegedly supply the needed teaching of selection of applicants' recited non-halogenated monomeric phosphate ester flame retardant with the basic oligomeric species of the primary art. However, this combination of art references is clearly defective. Firstly, Keppeler indicates, at page 1, lines 18-19, that its flame retardant is "a specific flameproofing agent combination" thereby restricting the latitude that the person of ordinary skill in the art would legitimately have in changing its character to potentially fit into the systems shown by any of the prior art. Secondly, the Keppeler patent does not show or suggest any oligomeric phosphorus-containing flame retardants that equate with the basic systems of any of the primary art: the liquid flame retardants, for example, at Col. 7, line 37 to Col. 8, line 6 of the Keppeler patent are monomeric species, not oligomeric ones that contain at least three phosphorus atom-containing units therein as required for component (b) in the applicants' system! In other words, there is no section within Keppeler that would induce the person of ordinary skill in the art to look to it for suggestions as to how the systems shown in the primary art might be changed. Thirdly, the Keppeler system only combines the foregoing types of liquid flame retardant, which do include some potential monomeric phosphate choices,

with a second, solid flame retardant (as further elucidated at Col. 8, lines 17-33), which is *inorganic* in character rather than being suggestive of the *organic*, oligomeric species that are recited for component (b) in the applicants' system .

For the reasons just give, the combination of the Fearing patents and Sicken, on the one hand, and Keppeler, on the other, cannot really be made since the first three patents have, as their basis, certain oligomeric phosphorus-containing flame retardants with a totally non-instructive suggestion that certain types of totally unidentified additional flame retardants can also be employed. Keppeler, which has been cited to cure the clear deficiencies of the three primary citations, goes off in a completely differing direction from all of the cited primary art since it only teaches the use of phosphate flame retardants that are monomeric in nature with solid, *inorganic* flame retardants as a necessary second additive. In other words, Keppeler has a teaching of using monomeric *organic* phosphate esters with *inorganic* flame retardants, but this does not suggest the applicants' claimed system: an *all-organic* combination of (a) a non-halogenated monomeric phosphate ester species and (b) and oligomeric, low hydroxyl content phosphate ester species.

Removal of the Section 103 grounds of rejection that have been articulated at sections 2-10 on pages 2-5 of the last Office action would appear to be required in view of the previous discussion.

The remaining Section 103 rejection, which relies upon the use of the Hardy patents as an additional third set of art, and which is set forth at section 11 on page 5 of the Office Action,

should also be removed since it is based on the previously discredited rejection as a necessary foundation.

Allowance of Claims 1-3, 5-11, and 13-14 is again requested for the reasons provided above.

Respectfully submitted,

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